

In the specification:

Please replace paragraph [0013] with:

Figure 1 shows a paint line 10 that delivers an electrically conductive coating material, e.g., water base paint, to a (not-shown) electrostatic atomizer that charges the coating material situated in the paint line 10 to a high voltage. A pig 12 is moved backward and forward in the line 10 in order to transport the coating material and/or solvent to clean the line, wherein the movement of the pig past a certain location needs to be signaled to the control system. For this purpose, a magnetically acting transmitting element, e.g., a permanent magnet 14, is integrated or preferably encapsulated into the polymeric body of the pig, wherein a pig sensor 15 arranged at the concerned location responds to this transmitting element. The pig sensor 15 preferably consists of a relatively thin, long cylindrical housing that contains a ~~[(not-shown)]~~ polarization device 17 that is connected to an arrangement 16 of two optical fibers, wherein one optical fiber transmits light to, for example, a diode and the other fiber transmits light signals generated by the sensor to an electronic device that is preferably situated remotely from the high-voltage region and serves for generating an electric signal that corresponds to the light signal. The polarizer 17 linearly polarizes the received light. The polarized light is reflected by a mirror or reflector 19 situated on the end face of the sensor housing. For example, the polarized light may be reflected to a polarization detector or analyzer by means of a refractive element (Faraday effect element) in accordance with Figure 15 of ~~initially cited EP 0 319 172~~ U.S. Patent No. 4,931,635, the disclosure of which is incorporated herein by reference. This polarization detector or analyzer may form part of the polarization device and be connected to the output fiber on its opposite side. In the normal state, the polarized light reaches the output fiber in an unobstructed fashion. However, when the sensor is situated in the magnetic field of the pig 12, the Faraday effect causes the linearly polarized light to be turned in dependence on the field intensity such that its path into the output fiber is blocked. The change in the light signal is evaluated by the remote electronic device. It would also be conceivable to utilize a sensor that

operates in accordance with the magneto-optical Kerr effect and in which the polarization of light reflected on a magnetized ferromagnetic mirror is changed. In Figure 1, the polarized light is received and detected by a control which is connected to a valve "V" which controls the flow of fluid, such as solvent from a source to delivery line 10.